

For noncompact sections:

$$M_{uw} = \phi_f \frac{t_w D^2}{12} (F_{nc} + F_{yw}) \quad \text{(C6.13.6.1.4b-1b)}$$

$$H_{uw} = \phi_f \frac{t_w D}{2} (F_{yw} - F_{nc}) \quad \text{(C6.13.6.1.4b-2b)}$$

where:

t_w = web thickness (in.)

D = web depth (in.)

R_h = hybrid factor specified in Article 6.10.1.10.1. For hybrid sections in

which F_{ef} does not exceed the specified minimum yield strength of the web, the hybrid factor shall be taken as 1.0

~~F_{ef} = design stress for the controlling flange at the point of splice specified in Article 6.13.6.1.4c; positive for tension, negative for compression (ksi)~~

~~R_{ef} = the absolute value of the ratio of F_{ef} to the maximum flexural stress, f_{ef} , due to the factored loads at the midthickness of the controlling flange at the point of splice, as defined in Article 6.13.6.1.4e~~

~~f_{nef} = flexural stress due to the factored loads at the midthickness of the noncontrolling flange at the point of splice concurrent with f_{ef} ; positive for tension, negative for compression (ksi)~~

F_{nc} = nominal flexural resistance of the compression flange at the point of splice as specified in Article 6.10.8.2 (ksi)

F_{yw} = specified minimum yield strength of the web at the point of splice (ksi)

v_o = distance from the mid-depth of the web to the plastic neutral axis (in.)

ϕ_f = resistance factor for flexure specified in Article 6.5.4.2

Revise the 4th paragraph as follows:

In Eqs. C1 and C2, it is suggested that M_{uw} and H_{uw} be computed by conservatively using the flexural resistance stresses at the midthickness of the compression flanges and specified minimum yield strength of the web. ~~By utilizing the stresses at the midthickness of the flanges, the same stress values can be used for the design of both the web and flange splices, which simplifies the calculations. As an alternate, however, the stresses at the inner fibers of the flanges can be used. In either case, the stresses are to be computed considering the application of the moments due to the appropriate factored loadings to the respective cross sections supporting those loadings. In Eqs. C1 and C2, the concurrent flexural stress at the midthickness of the noncontrolling flange is factored up in the same proportion as the flexural stress in the controlling flange in order to satisfy the general design requirements of Article 6.13.1. The controlling and noncontrolling flanges are defined in Article C6.13.6.1.4e.~~

Revise the 5th and 6th paragraphs as follows:

The stresses in Eqs. C1 and C2 are to be taken as signed quantities. For convenience, absolute value signs are applied to the resulting difference of the stresses in Eq. C1. In actuality, the sign of M_{uw} corresponds to the sign of the flexural moment for the loading condition under consideration. H_{uw} in Eq. C2 is taken as a signed quantity; positive for tension, negative for compression. For sections where the neutral axis is located at the middepth of the web, H_{uw} will equal zero. For all other sections, M_{uw} and H_{uw} applied together will yield a combined stress distribution equivalent to the unsymmetrical stress distribution in the web.

Eqs. C1c and C2c can also be used to compute values of M_{uw} and H_{uw} to be used when checking for slip of the web bolts. ~~However, the following substitutions must first be made in both equations:~~

- ~~replace F_{ef} with the maximum flexural stress, f_s , due to Load Combination Service II at the midthickness of the flange under consideration for the smaller section at the point of splice,~~
- ~~replace f_{nef} with the flexural stress, f_{os} , due to Load Combination Service II at the midthickness of the other flange at the point of splice concurrent with f_s in the flange under consideration, and~~
- ~~set the factors R_h and R_{ef} equal to 1.0. It is not necessary to determine a controlling and noncontrolling flange when checking for slip.~~

~~The same sign convention applies to the stresses.~~

$$M_{uw} = \frac{t_w D^2}{12} |f_s - f_{os}| \quad \text{(C6.13.6.1.4b-1c)}$$

$$H_{uw} = \frac{t_w D}{2} (f_s + f_{os}) \quad \text{(C6.13.6.1.4b-2c)}$$

where:

f_s = maximum flexural stress due to Load Combination Service II at the extreme fiber of the flange under consideration for the smaller section at the point of splice (positive for tension and negative for compression) (ksi)

f_{os} = flexural stress due to Load Combination Service II at the extreme fiber of the other flange at the point of splice with f_s in the flange under consideration (positive for tension and negative for compression) (ksi)

In Eqs. C1c and C2c, it is suggested that M_{uw} and H_{uw} be computed by conservatively using the stresses at the extreme fiber of the flanges. As an alternate, however, the stresses at the midthickness of the flanges or the inner fibers of the flanges can be used. In either case, the stresses are to be computed considering the application of the moments due to the appropriate factored loadings to the respective cross-sections supporting those loadings.

~~R_{ef} = the absolute value of the ratio of F_{ef} to the maximum flexural stress, f_{ef} , due to the factored loads at the midthickness of the controlling flange at the point of splice, as defined in Article 6.13.6.1.4e~~

f_{ncf} = flexural stress due to the factored loads at the midthickness of the noncontrolling flange at the point of splice concurrent with f_{cf} ; positive for tension, negative for compression (ksi)